

Autonomous Air Traffic Reporting and Operations for UAS, Phase I

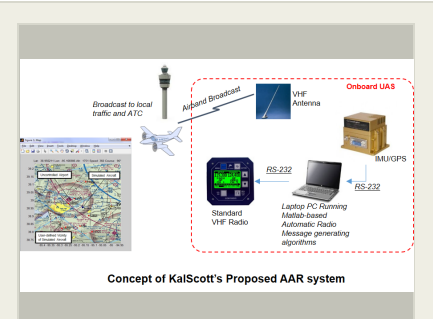
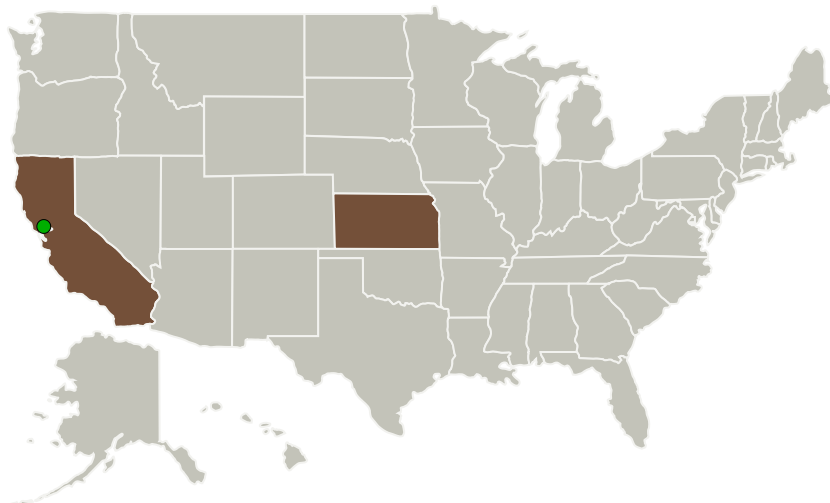
Completed Technology Project (2016 - 2016)



Project Introduction

A hardware/software solution for autonomous reporting of flight operations of a UAS is proposed. Such a system would enable the UAS to report identity, position, and other information to local human and autonomous traffic and air traffic controllers in an autonomous manner, in legacy terminology. This will improve the overall safety of UAS operations, and lead to easier integration of UASs into the national airspace system. In Phase I, the hardware will be developed and flight tested on a manned platform. In Phase II, refinements to the design will be implemented, and the system will be readied for production.

Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
KALSCOTT Engineering, Inc.	Lead Organization	Industry	Lawrence, Kansas
● Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California

Primary U.S. Work Locations

California	Kansas
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Project Transitions

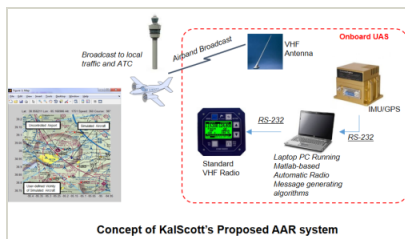
June 2016: Project Start

December 2016: Closed out

Closeout Documentation:

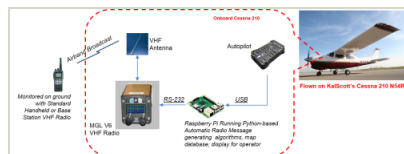
- Final Summary Chart(<https://techport.nasa.gov/file/140096>)

Images



Briefing Chart Image

Autonomous Air Traffic Reporting and Operations for UAS, Phase I (<https://techport.nasa.gov/image/134096>)



Final Summary Chart Image

Autonomous Air Traffic Reporting and Operations for UAS, Phase I Project Image (<https://techport.nasa.gov/image/128060>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

KALSCOTT Engineering, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

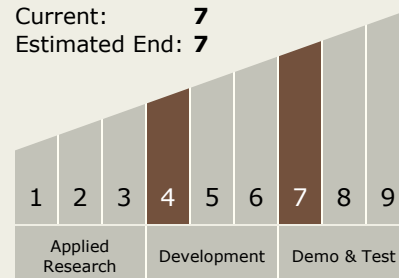
Carlos Torrez

Principal Investigator:

Thomas S Sherwood

Technology Maturity (TRL)

Start: 4
Current: 7
Estimated End: 7



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Technology Areas

Primary:

- TX01 Propulsion Systems
 - └ TX01.3 Aero Propulsion
 - └ TX01.3.2 Turbine Based Combined Cycle

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System